



November 15, 2018

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Department of Natural Resources  
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VIA ELECTRONIC MAIL

Teck American Incorporated (TAI) offers the following responses to the October 22, 2018 comments letter from the National Park Service (NPS) and the October 23, 2018 comment letter from the Western Arctic Caribou Herd Working Group (WACWG). Both comment letters were directed at TAI's *Phase I Plan of Operations to conduct exploration in the Lisburne Mining District at the Anarraaq/Aktigiruaq deposit* (F20189339) as described in the September 26, 2018 Alaska Department of Natural Resources courtesy public notice.

Teck appreciates the National Park Service's responsibility to manage Cape Krusenstern National Monument and Noatak National Preserve and offers the following responses to their comments.

TAI Response to NPS comment #1 regarding fugitive dust

TAI will obtain all necessary air permits associated with the project and will comply with all applicable state and federal air quality standards, which include deposition from fugitive dust. State and federal air emissions regulations do not require baseline monitoring prior to road construction or particulate deposition modelling for purposes of obtaining an air permit.

Particulate matter emissions associated with the construction of the road and material sites are not significant. Further, TAI has agreed to implement mitigation measures during the exploration activities to monitor for dust on the road and apply dust control measures as necessary. Dust suppression with water will be used during construction and an analysis of the best form of dust suppression for post-construction operations will be made in the future, including the option of applying Calcium chloride.

Mitigating the generation of metals fugitive dust is of paramount concern to TAI. Please note that neither concentrate nor ore will be hauled on the A&A Road. Concentrate from the Red Dog Mine will continue to be hauled from the Mill/Mine to the Port on the DMTS, where best management practices are used to reduce fugitive dust, and the assessment and development of BMPs is ongoing.

Although this is outside the scope of the current proposal, TAI is willing to consider instituting a monitoring program following road construction.

#### TAI Response to NPS comments # 2 - 5 regarding potential impacts to Caribou

TAI disagrees that existing mitigation measures to eliminate disturbance to caribou migrations have not been successful along the DMTS. Traffic on the DMTS road is stopped when caribou are migrating across the road. Over a six-year period (between 7/22/11 and 11/24/17), the DMTS was shut down for caribou migrations on 105 different occasions (for a total of 132.8 hours) so as not to disturb migration. Please note that 2018 data is not included in this tally because the caribou cards have not been entered yet. Migrations have never been interrupted by the DMTS traffic, except for two occasions involving medical emergencies (10/1/15 and 10/30/17).

Although collisions have been rare, Red Dog has documented eight incidents of vehicle collisions on the DMTS between January 2004 and November 2017 that resulted in eleven caribou deaths. By comparison, the average number of moose killed annually by vehicles in Alaska ranges from 126 to 280.

See <http://www.adfg.alaska.gov/index.cfm?adfg=livewith.drivingmoosecountry>.

In addition, the rate of caribou-vehicle collisions on Yukon roads ranges from 0.08 to 16.9 collisions/year, in comparison to a rate of less than one caribou-vehicle collision per year on the DMTS (0.85 collisions/year). See <http://www.env.gov.yk.ca/publications-maps/documents/MRC-15-02WildlifeCollisionsReport.pdf>. The Red Dog Operations' caribou policy has therefore resulted in an extremely low rate of caribou collisions and incidents on the DMTS.

Regarding the reference to an ADF&G presentation that concluded that the effects of the proposed access road on caribou would be insignificant, TAI has reached out to ADF&G and been unable to document this and will refrain from referring to it in the future.

#### TAI Response to NPS comments # 6 regarding subsistence groups

TAI is always open to comments from subsistence user groups and the Western Arctic Herd Working Group did submit comments to ADNIR on the Phase I Plan of Operations. These are addressed below in this document. Teck did make a concerted effort to involve stakeholders, including members of the Red Dog Subsistence Committee from Kivalina and Noatak, in the road alignment for this project. Certain road alternatives were dropped in direct response to stakeholder concerns over the presence of high-use caribou trails in the area.

Teck appreciates the Arctic Caribou Herd Working Group's goal of works to ensure conservation of the Western Arctic Caribou Herd (WACH) and to maintain traditional and other uses now and into the future and offers the following responses to their comments.

#### TAI Response to WACWG comment regarding caribou, habitat and subsistence

Caribou are a key concern for TAI and this project. Regarding concerns over impacts of exploration activity and impacts to caribou, the exploration proposed in this program consist of underground drilling from an underground ramp. We do not feel this has the potential to impact caribou.

The proposed access road and facilities are temporary. The facilities will be removed and the surface disturbance reclaimed at the end of the exploration program. If a new mine is proposed, in the future, that would be the appropriate time to more fully consider the long-term impacts of a long-term road in the area and likely it would be part of the environmental impact statement that would be prepared for a new mine. In the

meantime, TAI will gather information caribou movements in the area as they do under the caribou policy on the DMTS.

TAI will incorporate conventional road construction practices focused on constructing a stable, safe road, while minimizing impacts to the environment from road dust, storm water or degrading the permafrost. TAI plans to build the road in winter to reduce impacts to permafrost and apply geotextile over permafrost areas to contribute to the stability of that permafrost. TAI also plans to leave some of the road fill during reclamation which will continue to provide thermal insulation and contribute to long-term stability of the permafrost. Fully removing the road fill would contribute to permafrost degradation by removing an important insulating layer.

Regarding concerns over reclamation and habitat fragmentation, the proposed reclamation plan includes removing the bridges and culverts, re-grading the roads and pads, scarifying and reseeded to stabilize them and encourage recruitment of native species. This should not contribute to fragmentation of caribou habitat.

Sincerely



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cc:  
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